

**561703-2014-JP-CD**

**Smart Control Systems for Energy Management: New Master Degree/ (SEM-SEM)**

Specific Objectives:

- Establishment of a new Master of Science degree program in the field of Smart Control Systems for Energy Management at the EG/JOR.
- Establishing Technology Transfer Center (TTC) for training and consultancy in AASTMT, MU in cooperation with SU.
- Establish new courses in the fields of management and control of smart industrial mechanical systems.
- Adaptation of already developed courses at partner European universities to the Egyptian / Jordanian Universities partners.
- Adoption of the Bologna convention in the EG/JOR system.
- Signing an agreement of double degree for M.SC program between AASTMT and IST as well as MU and IST.
- Developing the skills of instructors by EU Universities.
- Strengthen the relationship between the Egyptian, Jordanian and European Universities
- Establish the new labs in Egypt/JOR for autonomous systems and energy saving systems.

The Egyptian/ Jordanian/European partners are looking forward to transforming this co-operation into a PhD research.

Project Summary:

The Middle East countries are going through a period of change where governments are forced to address the need for greater access to economic opportunity. With a challenging economic environment and a growing social demand, governments believe that subsidy reform especially in energy and food might help reconcile social protection and secure fiscal positions. With almost \$17 billion spending every year in Egypt and \$2.3 billion spending every year in Jordan.

Creating a smart energy environmental project will positively affect the consumption sector through monitoring consumers' habits for energy saving purposes. This project seeks to build a new consortium of academic partners in Egypt, Jordan and Europe, whose aim is providing the market with competent young professionals ready to manage and control smart systems. The consortium should also support young professionals, and developed industries with the required training and awareness for energy saving purposes.

A professional new master's degree in Smart Control Systems for Energy Management Engineering is to be established. This master will develop a mechanical and electrical engineers in the field of Quality Energy Management and Saving. Also, the ability to establish such master program on time will fulfill the job market requirements. This project includes the Bologna system in Egyptian and Jordanian Universities. The new Masters program will be designed to follow the Bologna system's instruction, which will encourage student exchange between the consortium members.

Finally, this project bridges the knowledge triangle, education-innovation-research between industry and academia. Therefore, a technology transfer center is intended to established for targeting EG/JOR Universities, industrial and governmental entities.

### Project Consortium

1. Applicant Organization: Staffordshire University, United Kingdom

### List of Partners (Multi-Country Project)

2. Universidad de Oviedo, Spain
3. Instituto Superior Tecnico, Portugal
4. University of Cyprus, Cyprus
5. Eurotraning Educational Organization, Greece
6. Arab Academy for Science, Technology and Maritime Transport, Egypt
7. Ain Shams University, Egypt
8. Nile University, Egypt
9. Helwan University, Egypt
10. Alexandria Co. for Seeds processing and derivations, Egypt
11. University of Jordan, Jordan
12. Mutah University LTD, Jordan
13. Jordan University of Science and Technology, Jordan

Total Grant Requested: EUR 981,618.00

Special Mobility Strand Additional Grant: No

Duration: 36 months